HYGIENETECH
Hygiene Technologies International, Inc.

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March 4, 2014

California State Board of Equalization
450 N Street
Sacramento, California 94279

Document No. 21401001.4

Attention: David Gau

Regarding: Limited Fungal Growth Exposure Assessment Surveys
February 2014 Random Sampling

Dear Mr. Gau:

On February 7, 14, 20, and 24, 2014, industrial hygienists with Hygiene Technologies International, Inc. (HygieneTech) conducted limited fungal growth exposure assessment surveys involving 22 randomly selected areas located within the California State Board of Equalization (BOE) building. The findings of the surveys, along with the analytical data, conclusions, and recommendations when applicable, appear below.

On the survey dates, air samples were collected for total (viable and nonviable) fungi analyses using a Zefon brand Bio-Pump Plus™ equipped with Air-O-Cell™ cassettes. All such samples were subsequently analyzed for fungi (including yeasts, molds, rusts, smuts, and mushrooms) by trained and experienced microbiologists at a laboratory accredited by the American Industrial Hygiene Association (AIHA) and that successfully participates in the AIHA Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program. The airborne fungi assessment analytical data with supporting and background information appear in the enclosed table.

As presented in Table 21402001-4, the airborne spore count data recorded showed fungal spore types outdoors such as *Alternaria*, ascospores, basidiospores, C*ladosporium*, colorless spores typical of *Penicillium*/*Aspergillus* species*, Curvularia*, *Epicoccum,* other brown*, Pithomyces,* rusts, smuts, *Stemphylium*, and/or *Torula*. In the indoor areas tested, the data showed that airborne fungal spores were either not detected at or above the laboratory detection limit indicated or were detected at low airborne concentrations. The fungal spore types found indoor included *Alternaria*, ascospores, basidiospores, *Cladosporium*, colorless spores typical of *Penicillium*/*Aspergillus* species, *Oidium,* other brown*,* rusts, and/or smuts*.* The distribution of fungal spore types detected in the surveyed areas was consistent with those found outdoors, and the overall data within the tested areas were well below the overall outdoor data recorded. These data are considered unremarkable and are not believed to pose a health risk beyond that posed by the outdoor environment where exposures to airborne fungi are expected.

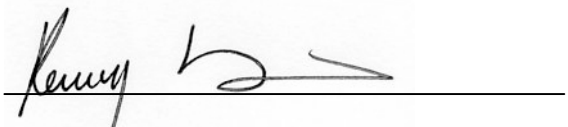
Be advised that the data provided in this report only represent limited fungal growth and exposure potentials that existed at the time these surveys were performed and at the precise sample locations

indicated. Note that fungal growth and exposure potentials may change due to changes in environmental conditions (such as those caused by water intrusion), use of mechanical systems, or other factors. Also be advised that additional fungal growth may exist at one or more locations in the structure that were not specifically assessed during the surveys.

If you have any comments or questions regarding the information contained in this correspondence, please feel free to contact our offices directly at (310) 370-8370.

Sincerely,

**HYGIENE TECHNOLOGIES INTERNATIONAL, INC.**



Kenny K. Hsi, CIH
Technical Director

# HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

# APPENDIX A

**CLIENT: California State Board of Equalization**
**450 N Street**
**Sacramento, California 94279**

## TABLE 21402001-4
## AIRBORNE TOTAL FUNGI RESULTS
## 450 N STREET
## SACRAMENTO, CALIFORNIA
## FEBRUARY 7, 14, 20, AND 24, 2014



**Results reported in spores per cubic meter of air (spores/$M^3$)**

| **SAMPLE NUMBER** | **21402001-4 TM01OUT** | **21402001-4 TM02** | **21402001-4 TM03** | **21402001-4 TM04** |
|---|---|---|---|---|
| **SAMPLING LOCATION/ACTIVITIES** | Outdoors; southeast corner of building; approximately five feet above ground/Normal outdoor activities | 20th Floor; southern corridor; about two feet south of Mail Room 20B entry door; approximately five feet above floor/Normal office activities | 18th Floor; Break Room 1805; about center; approximately five feet above floor/Normal office activities | 14th Floor; Copy Room 1405; about center; approximately five feet above floor/Normal office activities |
| **DATE** | 02/07/14 | 02/07/14 | 02/07/14 | 02/07/14 |
| **START/STOP** | 09:56:00/10:01:00 | 10:38:00/10:43:00 | 10:46:00/10:51:00 | 10:53:00/10:58:00 |
| **SAMPLE TIME** | 5 minutes | 5 minutes | 5 minutes | 5 minutes |
| Alternaria | 270 | | | |
| Ascospores | | | | |
| Basidiospores | 1,000 | | | |
| Bipolaris/Drechslera group | | | | |
| Botrytis | | | | |
| Chaetomium | | | | |
| Cladosporium | 3,000 | 110 | 53 | 160 |
| Curvularia | | | | |
| Epicoccum | | | | |
| Fusarium | | | | |
| Nigrospora | | | | |
| Oidium | | | | |
| Other brown | | | | |
| Other colorless | | | | |
| Penicillium/Aspergillus types | | | | |
| Pithomyces | | | | |
| Rusts | | | | |
| Smuts (Periconia, Myxomycetes) | | | 13 | |
| Stachybotrys | | | | |
| Stemphylium | | | | |
| Torula | | | | |
| Ulocladium | | | | |
| Hyphal fragments | <13 | <13 | 13 | <13 |
| Background debris* | 1+ | 1+ | 2+ | 2+ |
| **TOTAL**** | 4,300 | 110 | 67 | 160 |

*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

**Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

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## 450 N STREET
## SACRAMENTO, CALIFORNIA
## FEBRUARY 7, 14, 20, AND 24, 2014



**Results reported in spores per cubic meter of air (spores/$M^3$)**

| SAMPLE NUMBER | 21402001-4 TM05 | 21402001-4 TM06 | 21402001-4 TM07OUT | 21402001-4 TM08 |
|---|---|---|---|---|
| **SAMPLING LOCATION/ACTIVITIES** | 9th Floor; Column N23 area; Cubicle 86 entry area; approximately five feet above floor/Normal office activities | 4th Floor; Column K17 area; Cubicle 76; immediately adjacent to Column K17; approximately five feet above floor/Normal office activities | Outdoors; about 15 feet east of building; approximately five feet above ground/Normal outdoor activities | 1st Floor; Cafeteria; Café counter area; immediately east of counter; approximately five feet above floor/Normal office activities |
| **DATE** | 02/07/14 | 02/07/14 | 02/14/14 | 02/14/14 |
| **START/STOP** | 11:02:00/11:07:00 | 11:11:00/11:16:00 | 15:25:00/15:30:00 | 15:33:00/15:38:00 |
| **SAMPLE TIME** | 5 minutes | 5 minutes | 5 minutes | 5 minutes |
| Alternaria | | | 27 | |
| Ascospores | | | 1,900 | |
| Basidiospores | 53 | | 800 | |
| Bipolaris/Drechslera group | | | | |
| Botrytis | | | | |
| Chaetomium | | | | |
| Cladosporium | 53 | | 9,200 | |
| Curvularia | | | | |
| Epicoccum | | | 40 | |
| Fusarium | | | | |
| Nigrospora | | | | |
| Oidium | | | | |
| Other brown | | | | 27 |
| Penicillium/Aspergillus types | | | 480 | |
| Pithomyces | | | | |
| Rusts | | | | |
| Smuts (Periconia, Myxomycetes) | | 13 | | 13 |
| Stachybotrys | | | | |
| Stemphylium | | | 67 | |
| Torula | | | | |
| Trichocladium | | | | |
| Ulocladium | | | | |
| Zygomycetes | | | | |
| Hyphal fragments | <13 | <13 | <13 | <13 |
| Background debris* | 2+ | 2+ | 1+ | 2+ |
| **TOTAL**** | 110 | 13 | 13,000 | 40 |

*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

**Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

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## 450 N STREET
## SACRAMENTO, CALIFORNIA
## FEBRUARY 7, 14, 20, AND 24, 2014



**Results reported in spores per cubic meter of air (spores/$M^3$)**

| **SAMPLE NUMBER** | **21402001-4 TM09** | **21402001-4 TM10** | **21402001-4 TM11** | **21402001-4 TM12** |
|---|---|---|---|---|
| **SAMPLING LOCATION/ACTIVITIES** | 3rd Floor; Column O22 area; Cubicle at Column O22; approximately five feet above floor/Normal office activities | 7th Floor; Break Room 707; about center; approximately five feet above floor/Normal office activities | 17th Floor; Room 1708; about five feet southeast of entry door; approximately five feet above floor/Normal office activities | 19th Floor; Room 1908; about center; approximately five feet above floor/Normal office activities |
| **DATE** | 02/14/14 | 02/14/14 | 02/14/14 | 02/14/14 |
| **START/STOP** | 15:42:00/15:47:00 | 15:51:00/15:56:00 | 15:59:00/16:04:00 | 16:06:00/16:11:00 |
| **SAMPLE TIME** | 5 minutes | 5 minutes | 5 minutes | 5 minutes |
| Alternaria | | | | |
| Arthrinium | | | | |
| Ascospores | | | | 53 |
| Basidiospores | | | | 53 |
| Bipolaris/Drechslera group | | | | |
| Botrytis | | | | |
| Chaetomium | | | | |
| Cladosporium | 53 | 53 | | 53 |
| Curvularia | | | | |
| Epicoccum | | | | |
| Fusarium | | | | |
| Nigrospora | | | | |
| Oidium | | | | |
| Other brown | | 13 | | |
| Penicillium/Aspergillus types | | 53 | | |
| Pithomyces | | | | |
| Rusts | | | | |
| Smuts (Periconia, Myxomycetes) | | | | |
| Stachybotrys | | | | |
| Stemphylium | | | | |
| Torula | | | | |
| Ulocladium | | | | |
| Hyphal fragments | <13 | <13 | <13 | 13 |
| Background debris* | 2+ | 2+ | 1+ | 2+ |
| **TOTAL**** | 53 | 120 | <13 | 160 |

*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

**Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

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## 450 N STREET
## SACRAMENTO, CALIFORNIA
## FEBRUARY 7, 14, 20, AND 24, 2014



**Results reported in spores per cubic meter of air (spores/$M^3$)**

| **SAMPLE NUMBER** | **21402001-4 TM13** | **21402001-4 TM14OUT** | **21402001-4 TM15** | **21402001-4 TM16** |
|---|---|---|---|---|
| **SAMPLING LOCATION/ACTIVITIES** | 22nd Floor; Column K18 area; about 10 feet southwest of Column K18; approximately five feet above floor/Normal office activities | Outdoors; about 15 feet west of building; approximately five feet above ground/Normal outdoor activities | 5th Floor; Quiet Room 504; entry area; approximately five feet above floor/Normal office activities | 8th Floor; Room 809; about center; approximately five feet above floor/Normal office activities |
| **DATE** | 02/14/14 | 02/20/14 | 02/20/14 | 02/20/14 |
| **START/STOP** | 16:15:00/16:20:00 | 14:49:00/14:54:00 | 14:58:00/15:03:00 | 15:05:00/15:10:00 |
| **SAMPLE TIME** | 5 minutes | 5 minutes | 5 minutes | 5 minutes |
| Alternaria | | 67 | | |
| Ascospores | | 160 | | |
| Basidiospores | | 1,000 | 210 | 53 |
| Bipolaris/Drechslera group | | | | |
| Botrytis | | | | |
| Chaetomium | | | | |
| Cladosporium | | 4,300 | 320 | 210 |
| Curvularia | | 13 | | |
| Epicoccum | | 13 | | |
| Myrothecium | | | | |
| Nigrospora | | | | |
| Oidium | | | | |
| Other colorless | | | | |
| Penicillium/Aspergillus types | | 320 | | |
| Pithomyces | | 13 | | |
| Rusts | | 13 | | |
| Smuts (Periconia, Myxomycetes) | | 40 | 13 | |
| Stachybotrys | | | | |
| Stemphylium | | | | |
| Torula | | | | |
| Ulocladium | | | | |
| Zygomycetes | | | | |
| Hyphal fragments | <13 | 93 | 40 | <13 |
| Background debris* | 1+ | 2+ | 2+ | 2+ |
| **TOTAL**** | <13 | 6,000 | 550 | 270 |

*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

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## FEBRUARY 7, 14, 20, AND 24, 2014



**Results reported in spores per cubic meter of air (spores/$M^3$)**

| SAMPLE NUMBER | 21402001-4 TM17 | 21402001-4 TM18 | 21402001-4 TM19 | 21402001-4 TM20OUT |
|---|---|---|---|---|
| **SAMPLING LOCATION/ACTIVITIES** | 15th Floor; Break Room 1508; about center; approximately five feet above floor/Normal office activities | 16th Floor; Break Room 1603; about center; approximately five feet above floor/Normal office activities | 24th Floor; Room 2447; about center; approximately five feet above floor/Normal office activities | Outdoors; about 10 feet south of building; approximately five feet above ground/Normal outdoor activities |
| **DATE** | 02/20/14 | 02/20/14 | 02/20/14 | 02/24/14 |
| **START/STOP** | 15:13:00/15:18:00 | 15:20:00/15:25:00 | 15:28:00/15:33:00 | 14:49:00/14:54:00 |
| **SAMPLE TIME** | 5 minutes | 5 minutes | 5 minutes | 5 minutes |
| Alternaria | | 13 | | 40 |
| Ascospores | | | | 590 |
| Basidiospores | 53 | 210 | 53 | 1,300 |
| Bipolaris/Drechslera group | | | | |
| Botrytis | | | | |
| Chaetomium | | | | |
| Cladosporium | 53 | 370 | 53 | 4,800 |
| Curvularia | | | | |
| Epicoccum | | | | |
| Fusarium | | | | |
| Myrothecium | | | | |
| Nigrospora | | | | |
| Oidium | | | | |
| Other brown | | | | 13 |
| Penicillium/Aspergillus types | | | 110 | 110 |
| Pithomyces | | | | |
| Rusts | | | | 53 |
| Smuts (Periconia, Myxomycetes) | | | | 80 |
| Stemphylium | | | | 13 |
| Stachybotrys | | | | |
| Torula | | | | 80 |
| Ulocladium | | | | |
| Zygomycetes | | | | |
| Hyphal fragments | 13 | 27 | <13 | 53 |
| Background debris* | 2+ | 2+ | 2+ | 2+ |
| **TOTAL**** | 110 | 600 | 210 | 7,100 |

*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

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## 450 N STREET
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## FEBRUARY 7, 14, 20, AND 24, 2014



**Results reported in spores per cubic meter of air (spores/$M^3$)**

| SAMPLE NUMBER | 21402001-4 TM21 | 21402001-4 TM22 | 21402001-4 TM23 | 21402001-4 TM24 |
|---|---|---|---|---|
| **SAMPLING LOCATION/ACTIVITIES** | 2nd Floor; Column M18 area; about two feet north of Column M18; approximately five feet above floor/Normal office activities | 6th Floor; Column N18 area; about two feet southeast of Column N18; approximately five feet above floor/Normal office activities | 10th Floor; southern and western corridor junction; approximately feet above floor/Normal office activities | 11th Floor; Column J21 area; Cubicle 11 entry area; approximately five feet above floor/Normal office activities |
| **DATE** | 02/24/14 | 02/24/14 | 02/24/14 | 02/24/14 |
| **START/STOP** | 14:59:00/15:04:00 | 15:10:00/15:15:00 | 15:17:00/15:22:00 | 15:25:00/15:30:00 |
| **SAMPLE TIME** | 5 minutes | 5 minutes | 5 minutes | 5 minutes |
| Alternaria | | | | |
| Ascospores | | | | |
| Basidiospores | | | 210 | |
| Bipolaris/Drechslera group | | | | |
| Botrytis | | | | |
| Chaetomium | | | | |
| Cladosporium | | | 110 | 53 |
| Curvularia | | | | |
| Epicoccum | | | | |
| Fusarium | | | | |
| Myrothecium | | | | |
| Nigrospora | | | | |
| Oidium | | | | 13 |
| Other brown | | | 13 | 13 |
| Penicillium/Aspergillus types | | | | |
| Pithomyces | | | | |
| Rusts | | | | 13 |
| Smuts (Periconia, Myxomycetes) | | | | |
| Stachybotrys | | | | |
| Stemphylium | | | | |
| Torula | | | | |
| Ulocladium | | | | |
| Hyphal fragments | <13 | <13 | <13 | <13 |
| Background debris* | 2+ | 2+ | 2+ | 2+ |
| **TOTAL**** | <13 | <13 | 330 | 93 |

*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

**Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

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## 450 N STREET
## SACRAMENTO, CALIFORNIA
## FEBRUARY 7, 14, 20, AND 24, 2014



| SAMPLE NUMBER | 21402001-4 TM25 | 21402001-4 TM26 | | |
|---|---|---|---|---|
| SAMPLING LOCATION/ACTIVITIES | 21st Floor; Mail Room 21B; about six feet north of entry door; approximately five feet above floor/Normal office activities | 23rd Floor; Room 2311; Reception area; about center; approximately five feet above floor/Normal office activities | This column intentionally left blank | This column intentionally left blank |
| DATE | 02/24/14 | 02/24/14 | | |
| START/STOP | 15:36:00/15:41:00 | 15:45:00/15:50:00 | | |
| SAMPLE TIME | 5 minutes | 5 minutes | | |
| Alternaria | | | | |
| Ascospores | | | | |
| Basidiospores | 53 | | | |
| Bipolaris/Drechslera group | | | | |
| Botrytis | | | | |
| Chaetomium | | | | |
| Cladosporium | 110 | 53 | | |
| Curvularia | | | | |
| Epicoccum | | | | |
| Fusarium | | | | |
| Myrothecium | | | | |
| Nigrospora | | | | |
| Oidium | | | | |
| Other brown | | | | |
| Penicillium/Aspergillus types | | 53 | | |
| Pithomyces | | | | |
| Rusts | 13 | | | |
| Smuts (Periconia, Myxomycetes) | | | | |
| Stachybotrys | | | | |
| Stemphylium | | | | |
| Torula | | | | |
| Ulocladium | | | | |
| Hyphal fragments | <13 | <13 | | |
| Background debris* | 2+ | 2+ | | |
| **TOTAL**** | 170 | 110 | | |

*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

**Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

EMLab P&K
A TestAmerica Company

Report for:

**Mr. Lakhpreet Sandhu**
**Hygiene Technologies International, Inc.**
3625 Del Amo Boulevard, Suite 180
Torrance, CA 90503-8370

Regarding: Project: 21402001-4
EML ID: 1168914

Approved by:

Technical Manager
Melissa Tracey

Dates of Analysis:
Spore trap analysis: 02-10-2014

Service SOPs: Spore trap analysis (1038)
AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

**EMLab P&K**
880 Riverside Parkway, West Sacramento, CA 95605
(866) 888-6653 Fax (650) 829-5852 www.emlab.com

Client: Hygiene Technologies International, Inc.
C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-07-2014
Date of Receipt: 02-07-2014
Date of Report: 02-10-2014

## SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

| Location: | 21402001-4 TM01OUT | | 21402001-4 TM02 | | 21402001-4 TM03 | |
|---|---|---|---|---|---|---|
| Comments (see below) | None | | None | | None | |
| Lab ID-Version‡: | 5289805-1 | | 5289806-1 | | 5289807-1 | |
| Analysis Date: | 02/10/2014 | | 02/10/2014 | | 02/10/2014 | |
| | raw ct. | spores/m3 | raw ct. | spores/m3 | raw ct. | spores/m3 |
| Ascospores | 5 | 270 | | | | |
| Basidiospores | 19 | 1,000 | | | | |
| Bipolaris/Drechslera group | | | | | | |
| Botrytis | | | | | | |
| Chaetomium | | | | | | |
| Cladosporium | 57 | 3,000 | 2 | 110 | 1 | 53 |
| Curvularia | | | | | | |
| Epicoccum | | | | | | |
| Fusarium | | | | | | |
| Myrothecium | | | | | | |
| Nigrospora | | | | | | |
| Other colorless | | | | | | |
| Penicillium/Aspergillus types† | | | | | | |
| Pithomyces | | | | | | |
| Rusts | | | | | | |
| Smuts, Periconia, Myxomycetes | | | | | 1 | 13 |
| Stachybotrys | | | | | | |
| Stemphylium | | | | | | |
| Torula | | | | | | |
| Ulocladium | | | | | | |
| Zygomycetes | | | | | | |
| Background debris (1-4+)†† | 1+ | | 1+ | | 2+ | |
| Hyphal fragments/m3 | < 13 | | < 13 | | 13 | |
| Pollen/m3 | 67 | | 13 | | < 13 | |
| Skin cells (1-4+) | < 1+ | | < 1+ | | 1+ | |
| Sample volume (liters) | 75 | | 75 | | 75 | |
| **§ TOTAL SPORES/m3** | | 4,300 | | 110 | | 67 |

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

**EMLab P&K**
880 Riverside Parkway, West Sacramento, CA 95605
(866) 888-6653 Fax (650) 829-5852 www.emlab.com

Client: Hygiene Technologies International, Inc.
C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-07-2014
Date of Receipt: 02-07-2014
Date of Report: 02-10-2014

## SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

| Location: | 21402001-4 TM04 | | 21402001-4 TM05 | | 21402001-4 TM06 | |
|---|---|---|---|---|---|---|
| Comments (see below) | None | | None | | None | |
| Lab ID-Version‡: | 5289808-1 | | 5289809-1 | | 5289810-1 | |
| Analysis Date: | 02/10/2014 | | 02/10/2014 | | 02/10/2014 | |
| | raw ct. | spores/m3 | raw ct. | spores/m3 | raw ct. | spores/m3 |
| Ascospores | | | | | | |
| Basidiospores | | | 1 | 53 | | |
| Bipolaris/Drechslera group | | | | | | |
| Botrytis | | | | | | |
| Chaetomium | | | | | | |
| Cladosporium | 3 | 160 | 1 | 53 | | |
| Curvularia | | | | | | |
| Epicoccum | | | | | | |
| Fusarium | | | | | | |
| Myrothecium | | | | | | |
| Nigrospora | | | | | | |
| Other colorless | | | | | | |
| Penicillium/Aspergillus types† | | | | | | |
| Pithomyces | | | | | | |
| Rusts | | | | | | |
| Smuts, Periconia, Myxomycetes | | | | | 1 | 13 |
| Stachybotrys | | | | | | |
| Stemphylium | | | | | | |
| Torula | | | | | | |
| Ulocladium | | | | | | |
| Zygomycetes | | | | | | |
| Background debris (1-4+)†† | 2+ | | 2+ | | 2+ | |
| Hyphal fragments/m3 | < 13 | | < 13 | | < 13 | |
| Pollen/m3 | < 13 | | < 13 | | < 13 | |
| Skin cells (1-4+) | 1+ | | 1+ | | 1+ | |
| Sample volume (liters) | 75 | | 75 | | 75 | |
| **§ TOTAL SPORES/m3** | | 160 | | 110 | | 13 |

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

**EMLab P&K**
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Client: Hygiene Technologies International, Inc.
C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-07-2014
Date of Receipt: 02-07-2014
Date of Report: 02-10-2014

## MoldRANGE™: Extended Outdoor Comparison

## Outdoor Location: 21402001-4 TM01OUT

| Fungi Identified | Outdoor data | Typical Outdoor Data for: February in California† (n‡=16302) | | | | | | Typical Outdoor Data for: The entire year in California† (n‡=199769) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | spores/m3 | very low | low | med | high | very high | freq % | very low | low | med | high | very high | freq % |
| **Generally able to grow indoors*** | | | | | | | | | | | | | |
| Alternaria | - | 13 | 13 | 20 | 44 | 67 | 38 | 13 | 13 | 27 | 67 | 110 | 54 |
| Bipolaris/Drechslera group | - | 7 | 13 | 13 | 27 | 40 | 7 | 7 | 13 | 13 | 27 | 40 | 12 |
| Chaetomium | - | 7 | 13 | 13 | 27 | 40 | 9 | 8 | 13 | 13 | 27 | 47 | 19 |
| Cladosporium | 3,000 | 80 | 150 | 400 | 1,000 | 1,700 | 95 | 110 | 210 | 610 | 1,600 | 2,800 | 97 |
| Curvularia | - | 7 | 10 | 13 | 13 | 27 | 2 | 7 | 13 | 13 | 27 | 53 | 6 |
| Nigrospora | - | 7 | 13 | 13 | 13 | 27 | 4 | 7 | 13 | 13 | 27 | 53 | 8 |
| Penicillium/Aspergillus types | - | 53 | 66 | 200 | 490 | 820 | 82 | 53 | 100 | 210 | 590 | 1,000 | 84 |
| Stachybotrys | - | 13 | 13 | 13 | 40 | 80 | 3 | 7 | 13 | 13 | 33 | 67 | 4 |
| Torula | - | 7 | 13 | 13 | 40 | 53 | 5 | 8 | 13 | 13 | 40 | 67 | 12 |
| **Seldom found growing indoors**** | | | | | | | | | | | | | |
| Ascospores | 270 | 27 | 53 | 160 | 510 | 960 | 72 | 25 | 53 | 110 | 360 | 690 | 71 |
| Basidiospores | 1,000 | 53 | 110 | 430 | 1,800 | 3,900 | 95 | 53 | 80 | 270 | 990 | 2,300 | 93 |
| Rusts | - | 8 | 13 | 13 | 40 | 73 | 14 | 13 | 13 | 13 | 53 | 80 | 26 |
| Smuts, Periconia, Myxomycetes | - | 13 | 13 | 27 | 67 | 110 | 54 | 13 | 13 | 40 | 110 | 210 | 68 |
| **§ TOTAL SPORES/m3** | 4,300 | | | | | | | | | | | | |

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.
** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

‡n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Client: Hygiene Technologies International, Inc.
C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-07-2014
Date of Receipt: 02-07-2014
Date of Report: 02-10-2014

## MoldSTAT™: Supplementary Statistical Spore Trap Report

**Outdoor Summary:** 21402001-4 TM01OUT:

| Species detected | Outdoor sample spores/m3 (<100 / 1K / 10K / >100K) | Typical outdoor ranges (North America) | Freq. % |
|---|---|---|---|
| Ascospores | 270 | 13 - 210 - 5,700 | 76 |
| Basidiospores | 1,000 | 15 - 450 - 24,000 | 92 |
| Cladosporium | 3,000 | 27 - 480 - 10,000 | 90 |
| Penicillium/Aspergillus types | < 13 | 13 - 170 - 2,700 | 68 |
| Smuts, Periconia, Myxomycetes | < 13 | 7 - 53 - 930 | 64 |
| **Total** | 4,300 | | |

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

## Indoor Samples

**Location:** 21402001-4 TM02

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 2% | dF: 4<br>Result: 0.2667<br>Critical value: 9.4877<br>Inside Similar: Yes | Result: 0.5000 | dF: 3<br>Result: 0.8750<br>Critical value: N/A<br>Outside Similar: N/A | Score: 102<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Cladosporium | 110 |
| **Total** | 110 |

**Location:** 21402001-4 TM03

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 1% | dF: 4<br>Result: 0.2667<br>Critical value: 9.4877<br>Inside Similar: Yes | Result: 0.4000 | dF: 4<br>Result: 0.3500<br>Critical value: N/A<br>Outside Similar: N/A | Score: 103<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Cladosporium | 53 |
| Smuts, Periconia, Myxomycetes | 13 |
| **Total** | 67 |

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## MoldSTAT™: Supplementary Statistical Spore Trap Report

**Location:** 21402001-4 TM04

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 3% | dF: 4<br>Result: 0.2667<br>Critical value: 9.4877<br>Inside Similar: Yes | Result: 0.5000 | dF: 3<br>Result: 0.8750<br>Critical value: N/A<br>Outside Similar: N/A | Score: 103<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Cladosporium | 160 |
| **Total** | 160 |

**Location:** 21402001-4 TM05

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 2% | dF: 4<br>Result: 0.2667<br>Critical value: 9.4877<br>Inside Similar: Yes | Result: 0.8000 | dF: 3<br>Result: 0.8750<br>Critical value: N/A<br>Outside Similar: N/A | Score: 103<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Basidiospores | 53 |
| Cladosporium | 53 |
| **Total** | 110 |

**Location:** 21402001-4 TM06

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: < 1% | dF: 4<br>Result: 0.2667<br>Critical value: 9.4877<br>Inside Similar: Yes | Result: 0.0000 | dF: 4<br>Result: -0.4000<br>Critical value: N/A<br>Outside Similar: N/A | Score: 103<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Smuts, Periconia, Myxomycetes | 13 |
| **Total** | 13 |

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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## MoldSTAT™: Supplementary Statistical Spore Trap Report

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

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## MoldSCORE™: Spore Trap Report

**Outdoor Sample:** 21402001-4 TM01OUT

| Fungi Identified | Outdoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 |
|---|---|---|---|
| **Generally able to grow indoors*** | | | |
| Alternaria | | ND | < 13 |
| Bipolaris/Drechslera group | | ND | < 13 |
| Chaetomium | | ND | < 13 |
| Cladosporium | | 57 | 3,000 |
| Curvularia | | ND | < 13 |
| Nigrospora | | ND | < 13 |
| Penicillium/Aspergillus types† | | ND | < 13 |
| Stachybotrys | | ND | < 13 |
| Torula | | ND | < 13 |
| **Seldom found growing indoors**** | | | |
| Ascospores | | 5 | 270 |
| Basidiospores | | 19 | 1,000 |
| Rusts | | ND | < 13 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 |
| **Total** | | | **4,320** |

**Location:** 21402001-4 TM02

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 2 | 110 | | 102 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **107** | **Final MoldSCORE** | **102** |

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## MoldSCORE™: Spore Trap Report

**Location:** 21402001-4 TM03

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 1 | 53 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | 1 | 13 | | 103 |
| **Total** | | | **67** | **Final MoldSCORE** | **103** |

**Location:** 21402001-4 TM04

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 3 | 160 | | 103 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **160** | **Final MoldSCORE** | **103** |

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## MoldSCORE™: Spore Trap Report

**Location:** 21402001-4 TM05

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 1 | 53 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | 1 | 53 | | 103 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **107** | **Final MoldSCORE** | **103** |

**Location:** 21402001-4 TM06

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | ND | < 13 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | 1 | 13 | | 103 |
| **Total** | | | **13** | **Final MoldSCORE** | **103** |

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Re: 21402001-4

Date of Sampling: 02-07-2014
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Date of Report: 02-10-2014

## MoldSCORE™: Spore Trap Report

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.
** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

EMLab P&K
A TestAmerica Company

Report for:

**Mr. Lakhpreet Sandhu**
**Hygiene Technologies International, Inc.**
3625 Del Amo Boulevard, Suite 180
Torrance, CA 90503-8370

Regarding: Project: 21402001-4
EML ID: 1172421

Approved by:

Technical Manager
Melissa Tracey

Dates of Analysis:
Spore trap analysis: 02-19-2014

Service SOPs: Spore trap analysis (1038)
AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

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Client: Hygiene Technologies International, Inc.
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Re: 21402001-4

Date of Sampling: 02-14-2014
Date of Receipt: 02-18-2014
Date of Report: 02-19-2014

## SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

| Location: | 21402001-4TM07OUT | | 21402001-4TM08 | | 21402001-4TM09 | | 21402001-4TM10 | |
|---|---|---|---|---|---|---|---|---|
| Comments (see below) | None | | None | | None | | None | |
| Lab ID-Version‡: | 5307040-1 | | 5307041-1 | | 5307042-1 | | 5307043-1 | |
| Analysis Date: | 02/19/2014 | | 02/19/2014 | | 02/19/2014 | | 02/19/2014 | |
| | raw ct. | spores/m3 | raw ct. | spores/m3 | raw ct. | spores/m3 | raw ct. | spores/m3 |
| Alternaria | 2 | 27 | | | | | | |
| Ascospores | 36 | 1,900 | | | | | | |
| Basidiospores | 15 | 800 | | | | | | |
| Chaetomium | | | | | | | | |
| Cladosporium | 173 | 9,200 | | | 1 | 53 | 1 | 53 |
| Epicoccum | 3 | 40 | | | | | | |
| Fusarium | | | | | | | | |
| Myrothecium | | | | | | | | |
| Nigrospora | | | | | | | | |
| Oidium | 3 | 40 | | | | | | |
| Other brown | | | 2 | 27 | | | 1 | 13 |
| Other colorless | | | | | | | | |
| Penicillium/Aspergillus types† | 9 | 480 | | | | | 1 | 53 |
| Pithomyces | | | | | | | | |
| Rusts | | | | | | | | |
| Smuts, Periconia, Myxomycetes | | | 1 | 13 | | | | |
| Stachybotrys | | | | | | | | |
| Stemphylium | 5 | 67 | | | | | | |
| Torula | | | | | | | | |
| Ulocladium | | | | | | | | |
| Zygomycetes | | | | | | | | |
| Background debris (1-4+)†† | 1+ | | 2+ | | 2+ | | 2+ | |
| Hyphal fragments/m3 | < 13 | | < 13 | | < 13 | | < 13 | |
| Pollen/m3 | 170 | | 13 | | < 13 | | < 13 | |
| Skin cells (1-4+) | < 1+ | | 1+ | | 1+ | | 1+ | |
| Sample volume (liters) | 75 | | 75 | | 75 | | 75 | |
| **§ TOTAL SPORES/m3** | | 13,000 | | 40 | | 53 | | 120 |

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Client: Hygiene Technologies International, Inc.
C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-14-2014
Date of Receipt: 02-18-2014
Date of Report: 02-19-2014

## SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

| Location: | 21402001-4TM11 | | 21402001-4TM12 | | 21402001-4TM13 | |
|---|---|---|---|---|---|---|
| Comments (see below) | None | | None | | None | |
| Lab ID-Version‡: | 5307044-1 | | 5307045-1 | | 5307046-1 | |
| Analysis Date: | 02/19/2014 | | 02/19/2014 | | 02/19/2014 | |
| | raw ct. | spores/m3 | raw ct. | spores/m3 | raw ct. | spores/m3 |
| Alternaria | | | | | | |
| Ascospores | | | 1 | 53 | | |
| Basidiospores | | | 1 | 53 | | |
| Chaetomium | | | | | | |
| Cladosporium | | | 1 | 53 | | |
| Curvularia | | | | | | |
| Epicoccum | | | | | | |
| Fusarium | | | | | | |
| Myrothecium | | | | | | |
| Nigrospora | | | | | | |
| Oidium | | | | | | |
| Other brown | | | | | | |
| Other colorless | | | | | | |
| Penicillium/Aspergillus types† | | | | | | |
| Pithomyces | | | | | | |
| Rusts | | | | | | |
| Smuts, Periconia, Myxomycetes | | | | | | |
| Stachybotrys | | | | | | |
| Stemphylium | | | | | | |
| Torula | | | | | | |
| Ulocladium | | | | | | |
| Zygomycetes | | | | | | |
| Background debris (1-4+)†† | 1+ | | 2+ | | 1+ | |
| Hyphal fragments/m3 | < 13 | | 13 | | < 13 | |
| Pollen/m3 | < 13 | | < 13 | | < 13 | |
| Skin cells (1-4+) | < 1+ | | 1+ | | < 1+ | |
| Sample volume (liters) | 75 | | 75 | | 75 | |
| **§ TOTAL SPORES/m3** | | < 13 | | 160 | | < 13 |

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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## MoldRANGE™: Extended Outdoor Comparison

## Outdoor Location: 21402001-4TM07OUT

| Fungi Identified | Outdoor data | Typical Outdoor Data for: February in California† (n‡=16302) | | | | | | Typical Outdoor Data for: The entire year in California† (n‡=200710) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | spores/m3 | very low | low | med | high | very high | freq % | very low | low | med | high | very high | freq % |
| **Generally able to grow indoors*** | | | | | | | | | | | | | |
| Alternaria | 27 | 13 | 13 | 20 | 44 | 67 | 38 | 13 | 13 | 27 | 67 | 110 | 53 |
| Bipolaris/Drechslera group | - | 7 | 13 | 13 | 27 | 40 | 7 | 7 | 13 | 13 | 27 | 40 | 12 |
| Chaetomium | - | 7 | 13 | 13 | 27 | 40 | 9 | 8 | 13 | 13 | 27 | 47 | 19 |
| Cladosporium | 9,200 | 80 | 150 | 400 | 1,000 | 1,700 | 95 | 110 | 210 | 610 | 1,600 | 2,800 | 97 |
| Curvularia | - | 7 | 10 | 13 | 13 | 27 | 2 | 7 | 13 | 13 | 27 | 53 | 6 |
| Epicoccum | 40 | 7 | 13 | 13 | 27 | 53 | 13 | 8 | 13 | 13 | 33 | 53 | 19 |
| Nigrospora | - | 7 | 13 | 13 | 13 | 27 | 4 | 7 | 13 | 13 | 27 | 53 | 8 |
| Other brown | - | 11 | 13 | 13 | 27 | 47 | 29 | 13 | 13 | 13 | 40 | 53 | 34 |
| Penicillium/Aspergillus types | 480 | 53 | 66 | 200 | 490 | 820 | 82 | 53 | 100 | 210 | 590 | 1,000 | 84 |
| Stachybotrys | - | 13 | 13 | 13 | 40 | 80 | 3 | 7 | 13 | 13 | 33 | 67 | 4 |
| Stemphylium | 67 | 7 | 13 | 13 | 27 | 40 | 5 | 7 | 13 | 13 | 27 | 40 | 9 |
| Torula | - | 7 | 13 | 13 | 40 | 53 | 5 | 8 | 13 | 13 | 40 | 67 | 12 |
| **Seldom found growing indoors**** | | | | | | | | | | | | | |
| Ascospores | 1,900 | 27 | 53 | 160 | 510 | 960 | 72 | 25 | 53 | 110 | 360 | 690 | 71 |
| Basidiospores | 800 | 53 | 110 | 430 | 1,800 | 3,900 | 95 | 53 | 80 | 260 | 990 | 2,300 | 93 |
| Oidium | 40 | 13 | 13 | 13 | 40 | 67 | 14 | 13 | 13 | 13 | 44 | 75 | 19 |
| Rusts | - | 8 | 13 | 13 | 40 | 73 | 14 | 13 | 13 | 13 | 53 | 80 | 26 |
| Smuts, Periconia, Myxomycetes | - | 13 | 13 | 27 | 67 | 110 | 54 | 13 | 13 | 40 | 110 | 210 | 68 |
| **§ TOTAL SPORES/m3** | 13,000 | | | | | | | | | | | | |

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.
** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

‡n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-14-2014
Date of Receipt: 02-18-2014
Date of Report: 02-19-2014

## MoldSTAT™: Supplementary Statistical Spore Trap Report

**Outdoor Summary:** 21402001-4TM07OUT:

| Species detected | Outdoor sample spores/m3 (<100 / 1K / 10K / >100K) | Typical outdoor ranges (North America) | Freq. % |
|---|---|---|---|
| Alternaria | 27 | 7 - 33 - 590 | 45 |
| Ascospores | 1,900 | 13 - 210 - 5,700 | 76 |
| Basidiospores | 800 | 17 - 450 - 24,000 | 92 |
| Cladosporium | 9,200 | 27 - 470 - 10,000 | 90 |
| Epicoccum | 40 | 7 - 20 - 340 | 25 |
| Oidium | 40 | 7 - 13 - 230 | 12 |
| Penicillium/Aspergillus types | 480 | 13 - 170 - 2,700 | 68 |
| Smuts, Periconia, Myxomycetes | < 13 | 7 - 53 - 930 | 64 |
| Stemphylium | 67 | 7 - 13 - 93 | 3 |
| **Total** | 13,000 | | |

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

## Indoor Samples

**Location:** 21402001-4TM08

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: < 1% | dF: 5<br>Result: 3.9524<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.0000 | dF: 10<br>Result: -0.2242<br>Critical value: 0.5515<br>Outside Similar: No | Score: 113<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Other brown | 27 |
| Smuts, Periconia, Myxomycetes | 13 |
| **Total** | 40 |

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## MoldSTAT™: Supplementary Statistical Spore Trap Report

**Location:** 21402001-4TM09

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: < 1% | dF: 5<br>Result: 3.9524<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.2222 | dF: 8<br>Result: 0.6726<br>Critical value: 0.6190<br>Outside Similar: Yes | Score: 101<br>Result: Low |

| Species Detected | Spores/m3 <100 1K 10K >100K |
|---|---|
| Cladosporium | 53 |
| **Total** | 53 |

**Location:** 21402001-4TM10

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: < 1% | dF: 5<br>Result: 3.9524<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.3636 | dF: 9<br>Result: 0.3375<br>Critical value: 0.5833<br>Outside Similar: No | Score: 108<br>Result: Low |

| Species Detected | Spores/m3 <100 1K 10K >100K |
|---|---|
| Cladosporium | 53 |
| Other brown | 13 |
| Penicillium/Aspergillus types | 53 |
| **Total** | 120 |

**Location:** 21402001-4TM11

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: < 1% | dF: 5<br>Result: 3.9524<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.0000 | dF: N/A<br>Result: N/A<br>Critical value: N/A<br>Outside Similar: N/A | Score: 100<br>Result: Low |

| Species Detected | Spores/m3 <100 1K 10K >100K |
|---|---|
| **None Detected** | < 13 |

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## MoldSTAT™: Supplementary Statistical Spore Trap Report

**Location:** 21402001-4TM12

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 1% | dF: 5<br>Result: 3.9524<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.5455 | dF: 8<br>Result: 0.8631<br>Critical value: 0.6190<br>Outside Similar: Yes | Score: 105<br>Result: Low |

| Species Detected | Spores/m3 <100 | 1K | 10K | >100K |
|---|---|---|---|---|
| Ascospores | | | | 53 |
| Basidiospores | | | | 53 |
| Cladosporium | | | | 53 |
| **Total** | | | | 160 |

**Location:** 21402001-4TM13

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: < 1% | dF: 5<br>Result: 3.9524<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.0000 | dF: N/A<br>Result: N/A<br>Critical value: N/A<br>Outside Similar: N/A | Score: 100<br>Result: Low |

| Species Detected | Spores/m3 <100 | 1K | 10K | >100K |
|---|---|---|---|---|
| **None Detected** | | | | < 13 |

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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## MoldSTAT™: Supplementary Statistical Spore Trap Report

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Date of Sampling: 02-14-2014
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## MoldSCORE™: Spore Trap Report

**Outdoor Sample:** 21402001-4TM07OUT

| Fungi Identified | Outdoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 |
|---|---|---|---|
| **Generally able to grow indoors*** | | | |
| Alternaria | | 2 | 27 |
| Bipolaris/Drechslera group | | ND | < 13 |
| Chaetomium | | ND | < 13 |
| Cladosporium | | 173 | 9,200 |
| Curvularia | | ND | < 13 |
| Epicoccum | | 3 | 40 |
| Nigrospora | | ND | < 13 |
| Penicillium/Aspergillus types† | | 9 | 480 |
| Stachybotrys | | ND | < 13 |
| Stemphylium | | 5 | 67 |
| Torula | | ND | < 13 |
| **Seldom found growing indoors**** | | | |
| Ascospores | | 36 | 1,900 |
| Basidiospores | | 15 | 800 |
| Oidium | | 3 | 40 |
| Rusts | | ND | < 13 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 |
| **Total** | | | **12,600** |

**Location:** 21402001-4TM08

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | ND | < 13 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Other brown | | 2 | 27 | | 111 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | 1 | 13 | | 103 |
| **Total** | | | **40** | **Final MoldSCORE** | **113** |

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## MoldSCORE™: Spore Trap Report

**Location:** 21402001-4TM09

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 1 | 53 | | 101 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **53** | **Final MoldSCORE** | **101** |

**Location:** 21402001-4TM10

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 1 | 53 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Other brown | | 1 | 13 | | 105 |
| Penicillium/Aspergillus types† | | 1 | 53 | | 108 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **120** | **Final MoldSCORE** | **108** |

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Client: Hygiene Technologies International, Inc.
C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-14-2014
Date of Receipt: 02-18-2014
Date of Report: 02-19-2014

## MoldSCORE™: Spore Trap Report

**Location:** 21402001-4TM11

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | ND | < 13 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **N/A** | **Final MoldSCORE** | **100** |

**Location:** 21402001-4TM12

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 1 | 53 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | 1 | 53 | | 112 |
| Basidiospores | | 1 | 53 | | 105 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **160** | **Final MoldSCORE** | **105** |

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Re: 21402001-4

Date of Sampling: 02-14-2014
Date of Receipt: 02-18-2014
Date of Report: 02-19-2014

## MoldSCORE™: Spore Trap Report

**Location:** 21402001-4TM13

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | ND | < 13 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **N/A** | **Final MoldSCORE** | **100** |

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.
** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

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A TestAmerica Company

Report for:

**Mr. Kenny Hsi, Mr. Lakhpreet Sandhu**
**Hygiene Technologies International, Inc.**
3625 Del Amo Boulevard, Suite 180
Torrance, CA 90503-8370

Regarding: Project: 21402001-4
EML ID: 1173747

Approved by:

Technical Manager
Melissa Tracey

Dates of Analysis:
Spore trap analysis: 02-21-2014

Service SOPs: Spore trap analysis (1038)
AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

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Re: 21402001-4

Date of Sampling: 02-20-2014
Date of Receipt: 02-21-2014
Date of Report: 02-21-2014

## SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

| Location: | 21402001-4TM14OUT | | 21402001-4TM15 | | 21402001-4TM16 | |
|---|---|---|---|---|---|---|
| Comments (see below) | None | | None | | None | |
| Lab ID-Version‡: | 5314431-1 | | 5314432-1 | | 5314433-1 | |
| Analysis Date: | 02/21/2014 | | 02/21/2014 | | 02/21/2014 | |
| | raw ct. | spores/m3 | raw ct. | spores/m3 | raw ct. | spores/m3 |
| Alternaria | 5 | 67 | | | | |
| Ascospores | 3 | 160 | | | | |
| Basidiospores | 19 | 1,000 | 4 | 210 | 1 | 53 |
| Botrytis | | | | | | |
| Chaetomium | | | | | | |
| Cladosporium | 81 | 4,300 | 6 | 320 | 4 | 210 |
| Curvularia | 1 | 13 | | | | |
| Epicoccum | 1 | 13 | | | | |
| Fusarium | | | | | | |
| Myrothecium | | | | | | |
| Nigrospora | | | | | | |
| Other colorless | | | | | | |
| Penicillium/Aspergillus types† | 6 | 320 | | | | |
| Pithomyces | 1 | 13 | | | | |
| Rusts | 1 | 13 | | | | |
| Smuts, Periconia, Myxomycetes | 3 | 40 | 1 | 13 | | |
| Stachybotrys | | | | | | |
| Stemphylium | | | | | | |
| Torula | | | | | | |
| Ulocladium | | | | | | |
| Zygomycetes | | | | | | |
| Background debris (1-4+)†† | 2+ | | 2+ | | 2+ | |
| Hyphal fragments/m3 | 93 | | 40 | | < 13 | |
| Pollen/m3 | 160 | | 13 | | < 13 | |
| Skin cells (1-4+) | < 1+ | | 1+ | | 1+ | |
| Sample volume (liters) | 75 | | 75 | | 75 | |
| **§ TOTAL SPORES/m3** | | 6,000 | | 550 | | 270 |

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Re: 21402001-4

Date of Sampling: 02-20-2014
Date of Receipt: 02-21-2014
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## SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

| Location: | 21402001-4TM17 | | 21402001-4TM18 | | 21402001-4TM19 | |
|---|---|---|---|---|---|---|
| Comments (see below) | None | | None | | None | |
| Lab ID-Version‡: | 5314434-1 | | 5314435-1 | | 5314436-1 | |
| Analysis Date: | 02/21/2014 | | 02/21/2014 | | 02/21/2014 | |
| | raw ct. | spores/m3 | raw ct. | spores/m3 | raw ct. | spores/m3 |
| Alternaria | | | 1 | 13 | | |
| Ascospores | | | | | | |
| Basidiospores | 1 | 53 | 4 | 210 | 1 | 53 |
| Botrytis | | | | | | |
| Chaetomium | | | | | | |
| Cladosporium | 1 | 53 | 7 | 370 | 1 | 53 |
| Curvularia | | | | | | |
| Epicoccum | | | | | | |
| Fusarium | | | | | | |
| Myrothecium | | | | | | |
| Nigrospora | | | | | | |
| Other colorless | | | | | | |
| Penicillium/Aspergillus types† | | | | | 2 | 110 |
| Pithomyces | | | | | | |
| Rusts | | | | | | |
| Smuts, Periconia, Myxomycetes | | | | | | |
| Stachybotrys | | | | | | |
| Stemphylium | | | | | | |
| Torula | | | | | | |
| Ulocladium | | | | | | |
| Zygomycetes | | | | | | |
| Background debris (1-4+)†† | 2+ | | 2+ | | 2+ | |
| Hyphal fragments/m3 | 13 | | 27 | | < 13 | |
| Pollen/m3 | < 13 | | < 13 | | < 13 | |
| Skin cells (1-4+) | 1+ | | 1+ | | 1+ | |
| Sample volume (liters) | 75 | | 75 | | 75 | |
| **§ TOTAL SPORES/m3** | | 110 | | 600 | | 210 |

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Client: Hygiene Technologies International, Inc.
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Re: 21402001-4

Date of Sampling: 02-20-2014
Date of Receipt: 02-21-2014
Date of Report: 02-21-2014

## MoldRANGE™: Extended Outdoor Comparison

## Outdoor Location: 21402001-4TM14OUT

| Fungi Identified | Outdoor data | Typical Outdoor Data for: February in California† (n‡=16302) | | | | | | Typical Outdoor Data for: The entire year in California† (n‡=200710) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | spores/m3 | very low | low | med | high | very high | freq % | very low | low | med | high | very high | freq % |
| **Generally able to grow indoors*** | | | | | | | | | | | | | |
| Alternaria | 67 | 13 | 13 | 20 | 44 | 67 | 38 | 13 | 13 | 27 | 67 | 110 | 53 |
| Bipolaris/Drechslera group | - | 7 | 13 | 13 | 27 | 40 | 7 | 7 | 13 | 13 | 27 | 40 | 12 |
| Chaetomium | - | 7 | 13 | 13 | 27 | 40 | 9 | 8 | 13 | 13 | 27 | 47 | 19 |
| Cladosporium | 4,300 | 80 | 150 | 400 | 1,000 | 1,700 | 95 | 110 | 210 | 610 | 1,600 | 2,800 | 97 |
| Curvularia | 13 | 7 | 10 | 13 | 13 | 27 | 2 | 7 | 13 | 13 | 27 | 53 | 6 |
| Epicoccum | 13 | 7 | 13 | 13 | 27 | 53 | 13 | 8 | 13 | 13 | 33 | 53 | 19 |
| Nigrospora | - | 7 | 13 | 13 | 13 | 27 | 4 | 7 | 13 | 13 | 27 | 53 | 8 |
| Penicillium/Aspergillus types | 320 | 53 | 66 | 200 | 490 | 820 | 82 | 53 | 100 | 210 | 590 | 1,000 | 84 |
| Pithomyces | 13 | 7 | 10 | 13 | 13 | 35 | 1 | 7 | 13 | 13 | 27 | 53 | 4 |
| Stachybotrys | - | 13 | 13 | 13 | 40 | 80 | 3 | 7 | 13 | 13 | 33 | 67 | 4 |
| Torula | - | 7 | 13 | 13 | 40 | 53 | 5 | 8 | 13 | 13 | 40 | 67 | 12 |
| **Seldom found growing indoors**** | | | | | | | | | | | | | |
| Ascospores | 160 | 27 | 53 | 160 | 510 | 960 | 72 | 25 | 53 | 110 | 360 | 690 | 71 |
| Basidiospores | 1,000 | 53 | 110 | 430 | 1,800 | 3,900 | 95 | 53 | 80 | 260 | 990 | 2,300 | 93 |
| Rusts | 13 | 8 | 13 | 13 | 40 | 73 | 14 | 13 | 13 | 13 | 53 | 80 | 26 |
| Smuts, Periconia, Myxomycetes | 40 | 13 | 13 | 27 | 67 | 110 | 54 | 13 | 13 | 40 | 110 | 210 | 68 |
| **§ TOTAL SPORES/m3** | 6,000 | | | | | | | | | | | | |

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.
** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

‡n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Client: Hygiene Technologies International, Inc.
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Re: 21402001-4

Date of Sampling: 02-20-2014
Date of Receipt: 02-21-2014
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## MoldSTAT™: Supplementary Statistical Spore Trap Report

**Outdoor Summary:** 21402001-4TM14OUT:

| Species detected | Outdoor sample spores/m3 (<100 / 1K / 10K / >100K) | | Typical outdoor ranges (North America) | Freq. % |
|---|---|---|---|---|
| Alternaria | | 67 | 7 - 33 - 590 | 45 |
| Ascospores | | 160 | 13 - 210 - 5,700 | 76 |
| Basidiospores | | 1,000 | 17 - 450 - 24,000 | 92 |
| Cladosporium | | 4,300 | 27 - 470 - 10,000 | 90 |
| Curvularia | | 13 | 7 - 27 - 600 | 17 |
| Epicoccum | | 13 | 7 - 20 - 340 | 25 |
| Penicillium/Aspergillus types | | 320 | 13 - 170 - 2,700 | 68 |
| Pithomyces | | 13 | 7 - 20 - 590 | 15 |
| Rusts | | 13 | 7 - 20 - 360 | 20 |
| Smuts, Periconia, Myxomycetes | | 40 | 7 - 53 - 930 | 64 |
| **Total** | | 6,000 | | |

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

## Indoor Samples

**Location:** 21402001-4TM15

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 9% | dF: 4<br>Result: 4.5600<br>Critical value: 9.4877<br>Inside Similar: Yes | Result: 0.4615 | dF: 10<br>Result: 0.7152<br>Critical value: 0.5515<br>Outside Similar: Yes | Score: 113<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) | |
|---|---|---|
| Basidiospores | | 210 |
| Cladosporium | | 320 |
| Smuts, Periconia, Myxomycetes | | 13 |
| **Total** | | 550 |

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## MoldSTAT™: Supplementary Statistical Spore Trap Report

**Location:** 21402001-4TM16

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 4% | dF: 4<br>Result: 4.5600<br>Critical value: 9.4877<br>Inside Similar: Yes | Result: 0.3333 | dF: 10<br>Result: 0.7758<br>Critical value: 0.5515<br>Outside Similar: Yes | Score: 101<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Basidiospores | 53 |
| Cladosporium | 210 |
| **Total** | 270 |

**Location:** 21402001-4TM17

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 1% | dF: 4<br>Result: 4.5600<br>Critical value: 9.4877<br>Inside Similar: Yes | Result: 0.3333 | dF: 10<br>Result: 0.7727<br>Critical value: 0.5515<br>Outside Similar: Yes | Score: 104<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Basidiospores | 53 |
| Cladosporium | 53 |
| **Total** | 110 |

**Location:** 21402001-4TM18

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 9% | dF: 4<br>Result: 4.5600<br>Critical value: 9.4877<br>Inside Similar: Yes | Result: 0.4615 | dF: 10<br>Result: 0.7636<br>Critical value: 0.5515<br>Outside Similar: Yes | Score: 112<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Alternaria | 13 |
| Basidiospores | 210 |
| Cladosporium | 370 |
| **Total** | 600 |

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## MoldSTAT™: Supplementary Statistical Spore Trap Report

**Location:** 21402001-4TM19

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 3% | dF: 4<br>Result: 4.5600<br>Critical value: 9.4877<br>Inside Similar: Yes | Result: 0.4615 | dF: 10<br>Result: 0.8212<br>Critical value: 0.5515<br>Outside Similar: Yes | Score: 116<br>Result: Low |

| Species Detected | Spores/m3 <100 1K 10K >100K |
|---|---|
| Basidiospores | 53 |
| Cladosporium | 53 |
| Penicillium/Aspergillus types | 110 |
| **Total** | 210 |

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Client: Hygiene Technologies International, Inc.
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-20-2014
Date of Receipt: 02-21-2014
Date of Report: 02-21-2014

## MoldSCORE™: Spore Trap Report

**Outdoor Sample:** 21402001-4TM14OUT

| Fungi Identified | Outdoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 |
|---|---|---|---|
| **Generally able to grow indoors*** | | | |
| Alternaria | | 5 | 67 |
| Bipolaris/Drechslera group | | ND | < 13 |
| Chaetomium | | ND | < 13 |
| Cladosporium | | 81 | 4,300 |
| Curvularia | | 1 | 13 |
| Epicoccum | | 1 | 13 |
| Nigrospora | | ND | < 13 |
| Penicillium/Aspergillus types† | | 6 | 320 |
| Pithomyces | | 1 | 13 |
| Stachybotrys | | ND | < 13 |
| Torula | | ND | < 13 |
| **Seldom found growing indoors**** | | | |
| Ascospores | | 3 | 160 |
| Basidiospores | | 19 | 1,000 |
| Rusts | | 1 | 13 |
| Smuts, Periconia, Myxomycetes | | 3 | 40 |
| **Total** | | | **5,973** |

**Location:** 21402001-4TM15

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 6 | 320 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | 4 | 210 | | 113 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | 1 | 13 | | 102 |
| **Total** | | | **547** | **Final MoldSCORE** | **113** |

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Re: 21402001-4

Date of Sampling: 02-20-2014
Date of Receipt: 02-21-2014
Date of Report: 02-21-2014

## MoldSCORE™: Spore Trap Report

**Location:** 21402001-4TM16

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 4 | 210 | | 101 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | 1 | 53 | | 101 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **267** | **Final MoldSCORE** | **101** |

**Location:** 21402001-4TM17

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 1 | 53 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | 1 | 53 | | 104 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **107** | **Final MoldSCORE** | **104** |

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Date of Receipt: 02-21-2014
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## MoldSCORE™: Spore Trap Report

**Location:** 21402001-4TM18

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | 1 | 13 | | 102 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 7 | 370 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | 4 | 210 | | 112 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **600** | **Final MoldSCORE** | **112** |

**Location:** 21402001-4TM19

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 1 | 53 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | 2 | 110 | | 116 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | 1 | 53 | | 102 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **213** | **Final MoldSCORE** | **116** |

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Re: 21402001-4

Date of Sampling: 02-20-2014
Date of Receipt: 02-21-2014
Date of Report: 02-21-2014

## MoldSCORE™: Spore Trap Report

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.
** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

EMLab P&K
A TestAmerica Company

Report for:

**Mr. Lakhpreet Sandhu**
**Hygiene Technologies International, Inc.**
3625 Del Amo Boulevard, Suite 180
Torrance, CA 90503-8370

Regarding: Project: 21402001-4
EML ID: 1175106

Approved by:

Technical Manager
Melissa Tracey

Dates of Analysis:
Spore trap analysis: 02-26-2014

Service SOPs: Spore trap analysis (1038)
AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

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Client: Hygiene Technologies International, Inc.
C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-24-2014
Date of Receipt: 02-25-2014
Date of Report: 02-26-2014

## SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

| Location: | 21402001-4TM20OUT | | 21402001-4TM21 | | 21402001-4TM22 | | 21402001-4TM23 | |
|---|---|---|---|---|---|---|---|---|
| Comments (see below) | None | | None | | None | | None | |
| Lab ID-Version‡: | 5320638-1 | | 5320639-1 | | 5320640-1 | | 5320641-1 | |
| Analysis Date: | 02/26/2014 | | 02/26/2014 | | 02/26/2014 | | 02/26/2014 | |
| | raw ct. | spores/m3 | raw ct. | spores/m3 | raw ct. | spores/m3 | raw ct. | spores/m3 |
| Alternaria | 3 | 40 | | | | | | |
| Ascospores | 11 | 590 | | | | | | |
| Basidiospores | 24 | 1,300 | | | | | 4 | 210 |
| Chaetomium | | | | | | | | |
| Cladosporium | 90 | 4,800 | | | | | 2 | 110 |
| Epicoccum | | | | | | | | |
| Fusarium | | | | | | | | |
| Myrothecium | | | | | | | | |
| Nigrospora | | | | | | | | |
| Oidium | | | | | | | | |
| Other brown | 1 | 13 | | | | | 1 | 13 |
| Other colorless | | | | | | | | |
| Penicillium/Aspergillus types† | 2 | 110 | | | | | | |
| Pithomyces | | | | | | | | |
| Rusts | 4 | 53 | | | | | | |
| Smuts, Periconia, Myxomycetes | 6 | 80 | | | | | | |
| Stachybotrys | | | | | | | | |
| Stemphylium | 1 | 13 | | | | | | |
| Torula | 6 | 80 | | | | | | |
| Ulocladium | | | | | | | | |
| Zygomycetes | | | | | | | | |
| Background debris (1-4+)†† | 2+ | | 2+ | | 2+ | | 2+ | |
| Hyphal fragments/m3 | 53 | | < 13 | | < 13 | | < 13 | |
| Pollen/m3 | 67 | | 13 | | < 13 | | 27 | |
| Skin cells (1-4+) | < 1+ | | 1+ | | 1+ | | 1+ | |
| Sample volume (liters) | 75 | | 75 | | 75 | | 75 | |
| **§ TOTAL SPORES/m3** | | 7,100 | | < 13 | | < 13 | | 330 |

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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## SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

| Location: | 21402001-4TM24 | | 21402001-4TM25 | | 21402001-4TM26 | |
|---|---|---|---|---|---|---|
| Comments (see below) | None | | None | | None | |
| Lab ID-Version‡: | 5320642-1 | | 5320643-1 | | 5320644-1 | |
| Analysis Date: | 02/26/2014 | | 02/26/2014 | | 02/26/2014 | |
| | raw ct. | spores/m3 | raw ct. | spores/m3 | raw ct. | spores/m3 |
| Alternaria | | | | | | |
| Ascospores | | | | | | |
| Basidiospores | | | 1 | 53 | | |
| Chaetomium | | | | | | |
| Cladosporium | 1 | 53 | 2 | 110 | 1 | 53 |
| Curvularia | | | | | | |
| Epicoccum | | | | | | |
| Fusarium | | | | | | |
| Myrothecium | | | | | | |
| Nigrospora | | | | | | |
| Oidium | 1 | 13 | | | | |
| Other brown | 1 | 13 | | | | |
| Other colorless | | | | | | |
| Penicillium/Aspergillus types† | | | | | 1 | 53 |
| Pithomyces | | | | | | |
| Rusts | 1 | 13 | 1 | 13 | | |
| Smuts, Periconia, Myxomycetes | | | | | | |
| Stachybotrys | | | | | | |
| Stemphylium | | | | | | |
| Torula | | | | | | |
| Ulocladium | | | | | | |
| Zygomycetes | | | | | | |
| Background debris (1-4+)†† | 2+ | | 2+ | | 2+ | |
| Hyphal fragments/m3 | < 13 | | < 13 | | < 13 | |
| Pollen/m3 | < 13 | | < 13 | | < 13 | |
| Skin cells (1-4+) | 1+ | | 1+ | | 1+ | |
| Sample volume (liters) | 75 | | 75 | | 75 | |
| **§ TOTAL SPORES/m3** | | 93 | | 170 | | 110 |

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Date of Sampling: 02-24-2014
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## MoldRANGE™: Extended Outdoor Comparison

## Outdoor Location: 21402001-4TM20OUT

| Fungi Identified | Outdoor data | Typical Outdoor Data for: February in California† (n‡=16302) | | | | | | Typical Outdoor Data for: The entire year in California† (n‡=200710) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | spores/m3 | very low | low | med | high | very high | freq % | very low | low | med | high | very high | freq % |
| **Generally able to grow indoors*** | | | | | | | | | | | | | |
| Alternaria | 40 | 13 | 13 | 20 | 44 | 67 | 38 | 13 | 13 | 27 | 67 | 110 | 53 |
| Bipolaris/Drechslera group | - | 7 | 13 | 13 | 27 | 40 | 7 | 7 | 13 | 13 | 27 | 40 | 12 |
| Chaetomium | - | 7 | 13 | 13 | 27 | 40 | 9 | 8 | 13 | 13 | 27 | 47 | 19 |
| Cladosporium | 4,800 | 80 | 150 | 400 | 1,000 | 1,700 | 95 | 110 | 210 | 610 | 1,600 | 2,800 | 97 |
| Curvularia | - | 7 | 10 | 13 | 13 | 27 | 2 | 7 | 13 | 13 | 27 | 53 | 6 |
| Nigrospora | - | 7 | 13 | 13 | 13 | 27 | 4 | 7 | 13 | 13 | 27 | 53 | 8 |
| Other brown | 13 | 11 | 13 | 13 | 27 | 47 | 29 | 13 | 13 | 13 | 40 | 53 | 34 |
| Penicillium/Aspergillus types | 110 | 53 | 66 | 200 | 490 | 820 | 82 | 53 | 100 | 210 | 590 | 1,000 | 84 |
| Stachybotrys | - | 13 | 13 | 13 | 40 | 80 | 3 | 7 | 13 | 13 | 33 | 67 | 4 |
| Stemphylium | 13 | 7 | 13 | 13 | 27 | 40 | 5 | 7 | 13 | 13 | 27 | 40 | 9 |
| Torula | 80 | 7 | 13 | 13 | 40 | 53 | 5 | 8 | 13 | 13 | 40 | 67 | 12 |
| **Seldom found growing indoors**** | | | | | | | | | | | | | |
| Ascospores | 590 | 27 | 53 | 160 | 510 | 960 | 72 | 25 | 53 | 110 | 360 | 690 | 71 |
| Basidiospores | 1,300 | 53 | 110 | 430 | 1,800 | 3,900 | 95 | 53 | 80 | 260 | 990 | 2,300 | 93 |
| Oidium | - | 13 | 13 | 13 | 40 | 67 | 14 | 13 | 13 | 13 | 44 | 75 | 19 |
| Rusts | 53 | 8 | 13 | 13 | 40 | 73 | 14 | 13 | 13 | 13 | 53 | 80 | 26 |
| Smuts, Periconia, Myxomycetes | 80 | 13 | 13 | 27 | 67 | 110 | 54 | 13 | 13 | 40 | 110 | 210 | 68 |
| **§ TOTAL SPORES/m3** | 7,100 | | | | | | | | | | | | |

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.
** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

‡n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Client: Hygiene Technologies International, Inc.
C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-24-2014
Date of Receipt: 02-25-2014
Date of Report: 02-26-2014

## MoldSTAT™: Supplementary Statistical Spore Trap Report

**Outdoor Summary:** 21402001-4TM20OUT:

| Species detected | Outdoor sample spores/m3 (<100 / 1K / 10K / >100K) | Typical outdoor ranges (North America) | Freq. % |
|---|---|---|---|
| Alternaria | 40 | 7 - 33 - 590 | 45 |
| Ascospores | 590 | 13 - 210 - 5,700 | 76 |
| Basidiospores | 1,300 | 17 - 450 - 24,000 | 92 |
| Cladosporium | 4,800 | 27 - 470 - 10,000 | 90 |
| Other brown | 13 | 7 - 13 - 130 | 24 |
| Penicillium/Aspergillus types | 110 | 13 - 170 - 2,700 | 68 |
| Rusts | 53 | 7 - 20 - 360 | 20 |
| Smuts, Periconia, Myxomycetes | 80 | 7 - 53 - 930 | 64 |
| Stemphylium | 13 | 7 - 13 - 93 | 3 |
| Torula | 80 | 7 - 13 - 190 | 9 |
| **Total** | 7,100 | | |

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

## Indoor Samples

**Location:** 21402001-4TM21

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: < 1% | dF: 5<br>Result: 6.2143<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.0000 | dF: N/A<br>Result: N/A<br>Critical value: N/A<br>Outside Similar: N/A | Score: 100<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| **None Detected** | < 13 |

**Location:** 21402001-4TM22

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: < 1% | dF: 5<br>Result: 6.2143<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.0000 | dF: N/A<br>Result: N/A<br>Critical value: N/A<br>Outside Similar: N/A | Score: 100<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| **None Detected** | < 13 |

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880 Riverside Parkway, West Sacramento, CA 95605
(866) 888-6653 Fax (650) 829-5852 www.emlab.com

Client: Hygiene Technologies International, Inc.
C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-24-2014
Date of Receipt: 02-25-2014
Date of Report: 02-26-2014

## MoldSTAT™: Supplementary Statistical Spore Trap Report

**Location:** 21402001-4TM23

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 4% | dF: 5<br>Result: 6.2143<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.4615 | dF: 10<br>Result: 0.5091<br>Critical value: 0.5515<br>Outside Similar: No | Score: 116<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Basidiospores | 210 |
| Cladosporium | 110 |
| Other brown | 13 |
| **Total** | 330 |

**Location:** 21402001-4TM24

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 1% | dF: 5<br>Result: 6.2143<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.4286 | dF: 11<br>Result: 0.0273<br>Critical value: 0.5273<br>Outside Similar: No | Score: 105<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Cladosporium | 53 |
| Oidium | 13 |
| Other brown | 13 |
| Rusts | 13 |
| **Total** | 93 |

**Location:** 21402001-4TM25

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 2% | dF: 5<br>Result: 6.2143<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.4615 | dF: 10<br>Result: 0.6424<br>Critical value: 0.5515<br>Outside Similar: Yes | Score: 102<br>Result: Low |

| Species Detected | Spores/m3 (<100 / 1K / 10K / >100K) |
|---|---|
| Basidiospores | 53 |
| Cladosporium | 110 |
| Rusts | 13 |
| **Total** | 170 |

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C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-24-2014
Date of Receipt: 02-25-2014
Date of Report: 02-26-2014

## MoldSTAT™: Supplementary Statistical Spore Trap Report

**Location:** 21402001-4TM26

| % of outdoor total spores/m3 | Friedman chi-square* (indoor variation) | Agreement ratio** (indoor/outdoor) | Spearman rank correlation*** (indoor/outdoor) | MoldSCORE**** (indoor/outdoor) |
|---|---|---|---|---|
| Result: 1% | dF: 5<br>Result: 6.2143<br>Critical value: 11.0705<br>Inside Similar: Yes | Result: 0.3333 | dF: 10<br>Result: 0.6273<br>Critical value: 0.5515<br>Outside Similar: Yes | Score: 108<br>Result: Low |

| Species Detected | Spores/m3 <100 1K 10K >100K |
|---|---|
| Cladosporium | 53 |
| Penicillium/Aspergillus types | 53 |
| **Total** | 110 |

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Re: 21402001-4

Date of Sampling: 02-24-2014
Date of Receipt: 02-25-2014
Date of Report: 02-26-2014

## MoldSCORE™: Spore Trap Report

**Outdoor Sample:** 21402001-4TM20OUT

| Fungi Identified | Outdoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 |
|---|---|---|---|
| **Generally able to grow indoors*** | | | |
| Alternaria | | 3 | 40 |
| Bipolaris/Drechslera group | | ND | < 13 |
| Chaetomium | | ND | < 13 |
| Cladosporium | | 90 | 4,800 |
| Curvularia | | ND | < 13 |
| Nigrospora | | ND | < 13 |
| Other brown | | 1 | 13 |
| Penicillium/Aspergillus types† | | 2 | 110 |
| Stachybotrys | | ND | < 13 |
| Stemphylium | | 1 | 13 |
| Torula | | 6 | 80 |
| **Seldom found growing indoors**** | | | |
| Ascospores | | 11 | 590 |
| Basidiospores | | 24 | 1,300 |
| Rusts | | 4 | 53 |
| Smuts, Periconia, Myxomycetes | | 6 | 80 |
| **Total** | | | **7,053** |

**Location:** 21402001-4TM21

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | ND | < 13 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **N/A** | **Final MoldSCORE** | **100** |

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Re: 21402001-4

Date of Sampling: 02-24-2014
Date of Receipt: 02-25-2014
Date of Report: 02-26-2014

## MoldSCORE™: Spore Trap Report

**Location:** 21402001-4TM22

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | ND | < 13 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **N/A** | **Final MoldSCORE** | **100** |

**Location:** 21402001-4TM23

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 2 | 110 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Other brown | | 1 | 13 | | 105 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | 4 | 210 | | 116 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **333** | **Final MoldSCORE** | **116** |

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Re: 21402001-4

Date of Sampling: 02-24-2014
Date of Receipt: 02-25-2014
Date of Report: 02-26-2014

## MoldSCORE™: Spore Trap Report

**Location:** 21402001-4TM24

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 1 | 53 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Other brown | | 1 | 13 | | 105 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Oidium | | 1 | 13 | | 105 |
| Rusts | | 1 | 13 | | 105 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **93** | **Final MoldSCORE** | **105** |

**Location:** 21402001-4TM25

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 2 | 110 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | ND | < 13 | | 100 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | 1 | 53 | | 102 |
| Rusts | | 1 | 13 | | 105 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **173** | **Final MoldSCORE** | **102** |

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Client: Hygiene Technologies International, Inc.
C/O: Mr. Lakhpreet Sandhu
Re: 21402001-4

Date of Sampling: 02-24-2014
Date of Receipt: 02-25-2014
Date of Report: 02-26-2014

## MoldSCORE™: Spore Trap Report

**Location:** 21402001-4TM26

| Fungi Identified | Indoor sample spores/m3 <100 1K 10K >100K | Raw count | Spores/ m3 | MoldSCORE‡ 100 200 300 | Score |
|---|---|---|---|---|---|
| **Generally able to grow indoors*** | | | | | |
| Alternaria | | ND | < 13 | | 100 |
| Bipolaris/Drechslera group | | ND | < 13 | | 100 |
| Chaetomium | | ND | < 13 | | 100 |
| Cladosporium | | 1 | 53 | | 100 |
| Curvularia | | ND | < 13 | | 100 |
| Nigrospora | | ND | < 13 | | 100 |
| Penicillium/Aspergillus types† | | 1 | 53 | | 108 |
| Stachybotrys | | ND | < 13 | | 100 |
| Torula | | ND | < 13 | | 100 |
| **Seldom found growing indoors**** | | | | | |
| Ascospores | | ND | < 13 | | 100 |
| Basidiospores | | ND | < 13 | | 100 |
| Rusts | | ND | < 13 | | 100 |
| Smuts, Periconia, Myxomycetes | | ND | < 13 | | 100 |
| **Total** | | | **107** | **Final MoldSCORE** | **108** |

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.
** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

**HYGIENE TECH**
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3625 001168914
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# Request For Analysis

Project Number/~~Purchase Order:~~ 21402001-4 Date Submitted: 2/7/14
Project Contact: L. Sandhu / K. Hsi Turnaround Required: Normal
Lab Destination: EMLAB P&K Lab Contact: SAMPLE RECEIVING

| SAMPLE ID | VOLUME | MEDIA | ANALYSIS REQUESTED |
|---|---|---|---|
| 21402001-4 TM01 | 75L | Air-o-cell | Spore Trap Analysis (Total Fungi) |
| 21402001-4 TM02 | 75L | ↓ | ↓ |
| 21402001-4 TM03 | 75L | ↓ | ↓ |
| 21402001-4 TM04 | 75L | ↓ | ↓ |
| 21402001-4 TM05 | 75L | ↓ | ↓ |
| 21402001-4 TM06 | 75L | ↓ | ↓ |
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~~Special Instructions~~ A.I. Note: Random Sampling (R-1)

1. Sampled by: [signature] on 2/7/14 @ 9:56 Received by: [signature] 02/07/14 1242pm
2. Relinquished by: [signature] on 2/7/14 @ 12:40 Received by:
3. Relinquished by: Received by:

Please include signature, date, and time

**Lab Use Only:**

# HYGIENE TECH

Hygiene Technologies International, Inc.

001172421

3625 Del Ar
Torrance,
(310) 370-6370
(310) 370-2474 FAX
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# Request For Analysis

Project Number/~~Purchase Order~~: 21402001-4 Date Submitted: 2/18/14

Project Contact: L. Sandhu / K. Hsi Turnaround Required: Normal

Lab Destination: EMLAB P&K Lab Contact: Sample Receiving

| SAMPLE ID | VOLUME | MEDIA | ANALYSIS REQUESTED |
|---|---|---|---|
| 21402001-4 TM07 | 75L | Air-Cell | Spore Trap Analysis (Total Fungi) |
| 21402001-4 TM08 | 75L | | |
| 21402001-4 TM09 | 75L | | |
| 21402001-4 TM10 | 75L | | |
| 21402001-4 TM11 | 75L | | |
| 21402001-4 TM12 | 75L | | |
| 21402001-4 TM13 | 75L | | |

~~Special Instructions~~: Random Sampling (R-2)

1. **Sampled by:** Sandhu on 2/14/14 @ 4:23 **Received by:** [signature] 02/15/14 1230
2. **Relinquished by:** Sandhu on 2/18/14 @ 12:15 **Received by:** _____
3. **Relinquished by:** _____ **Received by:** _____

Please include signature, date, and time

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Torran
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001173747

# Request For Analysis

Project Number/~~Purchase Order~~: 21402001-4 Date Submitted: 2/20/14
Project Contact: L. Sandhu / K. Hsi Turnaround Required: Normal
Lab Destination: EMLAB P&K Lab Contact: Sample Receiving

| SAMPLE ID | VOLUME | MEDIA | ANALYSIS REQUESTED |
|---|---|---|---|
| 21402001-4 TM14out | 75L | Air-o-cell | Spore Trap Analysis (Total Fungi) |
| 21402001-4 TM15 | 75L | ↓ | ↓ ↓ |
| 21402001-4 TM16 | 75L | ↓ | ↓ ↓ |
| 21402001-4 TM17 | 75L | ↓ | ↓ ↓ |
| 21402001-4 TM18 | 75L | ↓ | ↓ ↓ |
| 21402001-4 TM19 | 75L | ↓ | ↓ ↓ |
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~~Special Instructions~~ (W) I Note: Random Sampling (R-3)

1. **Sampled by:** Sandhu on 2/20/14 @ 15:49 **Received by:** [signature] 2/21/14 @ 08:10
2. **Relinquished by:** Sandhu on 2/20/14 @ 17:00 **Received by:**
3. **Relinquished by:** **Received by:**

Please include signature, date, and time

**Lab Use Only:**

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Torn
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# Request For Analysis

Project Number/~~Purchase Order:~~ 21402001-4 Date Submitted: 2/24/14
Project Contact: L Sandhu / K.h Si Turnaround Required: Normal
Lab Destination: EMLAB P&K Lab Contact: Sample Receiving

| SAMPLE ID | VOLUME | MEDIA | ANALYSIS REQUESTED |
|---|---|---|---|
| 21402001-4 TM20 | 75L | Air-o-cell | Spore Trap Analysis (Total Fungi) |
| 21402001-4 TM21 | 75L | Air-o-cell | |
| 21402001-4 TM22 | 75L | Air-o-cell | |
| 21402001-4 TM23 | 75L | Air-o-cell | |
| 21402001-4 TM24 | 75L | Air-o-cell | |
| 21402001-4 TM25 | 75L | Air-o-cell | |
| 21402001-4 TM26 | 75L | Air-o-cell | |
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~~Special Instructions~~ I-Note: Random Sampling (R-4)

1. **Sampled by:** Sandhu on 2/24/14 @ 14:49 **Received by:** [signature] 02/25/14 1255
2. **Relinquished by:** Sandhu on 2/24/14 @ 17:05 **Received by:**
3. **Relinquished by:** **Received by:**

Please include signature, date, and time

**Lab Use Only:**